CLAIMS

1.   A terminal authenticating system wherein
when a mobile terminal participates in a mobile
network arranged inside a mobile body, a first
5   authenticating server arranged at a place away
from said mobile network can authenticate said
mobile terminal, said terminal authenticating
system being characterized in that a second
10   authenticating server is arranged inside said
mobile network, and even said second
authenticating server can authenticate said mobile
terminal.

15   2.   The terminal authenticating system
according to claim 1, characterized in that said
second authenticating server has: authenticating
means which can authenticate said mobile terminal;
and information storing means which can store an
20   authentication data to be referred when said
mobile terminal is authenticated.

3.   The terminal authenticating system
according to claim 2, characterized in that an
25   authentication request is transmitted from said

mobile terminal to said second authenticating server.

4. The terminal authenticating system according to claim 3, characterized in that said second authenticating server has connection judging means for judging whether or not a communication between said first authenticating server and said second authenticating server is possible, and when said second authenticating server receives said authentication request from said mobile terminal, if the communication with said first authenticating server is judged to be possible, sends said authentication request to said first authenticating server and receives an authentication result of said mobile terminal from said first authenticating server, and if the communication with said first authenticating server is judged to be impossible, uses said authenticating means and authenticates said mobile terminal.

5. The terminal authenticating system according to claim 4, characterized in that when sending said authentication request to said first

authenticating server and receiving the authentication result of said mobile terminal from said first authenticating server, said second authenticating server correlates an identification information of said mobile terminal and the authentication result of said mobile terminal and stores as said authentication data in said information storing means.

6.   The terminal authenticating system according to claim 1, characterized in that said second authenticating server has connection judging means for judging whether or not a communication between said first authenticating server and said second authenticating server is possible, and said connection judging means judges whether or not a communication with said first authenticating server is possible, and if the communication with said first authenticating server is judged to be possible, said second authenticating server obtains said authentication data required to authenticate said mobile terminal from said first authenticating server at any timing and stores in said information storing means.

7.   The terminal authenticating system according to claim 6, characterized in that said second authenticating server obtains said

5   authentication data from said first authenticating server at a predetermined timing and updates said authentication data stored in said information storing means.

10   8.   The terminal authenticating system according to claim 3, characterized in that when said second authenticating server authenticates said mobile terminal and fails to authenticate said mobile terminal, said second authenticating

15   server sends said authentication request to said first authenticating server and receives the authentication result of said mobile terminal from said first authenticating server.

20   9.   The terminal authenticating system according to claim 3, characterized in that the authentication result carried out by said first authenticating server or said second authenticating server is reported to said mobile

25   terminal transmitting said authentication request

from said second authenticating server.

10.   A terminal authenticating method wherein when a mobile terminal participates in a mobile network arranged inside a mobile body, a first authenticating server arranged at a place away from said mobile network can authenticate said mobile terminal, said terminal authenticating method being characterized in that a second authenticating server arranged inside said mobile network authenticates said mobile terminal.

11.   The terminal authenticating method according to claim 10, characterized in that said mobile terminal transmits an authentication request to said second authenticating server.

12.   The terminal authenticating method according to claim 11, characterized in that when said second authenticating server receives said authentication request from said mobile terminal and judges whether or not a communication between said first authenticating server and said second authenticating server is possible, and if the communication with said first authenticating

server is judged to be possible, sends said
authentication request to said first
authenticating server and receives an
authentication result of said mobile terminal from

5   said first authenticating server, and if the
communication with said first authenticating
server is judged to be impossible, said second
authenticating server authenticates said mobile
terminal.

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13.   The terminal authenticating method
according to claim 12, characterized in that when
sending said authentication request to said first
authenticating server and receiving the

15   authentication result of said mobile terminal from
said first authenticating server, said second
authenticating server correlates and stores an
identification information of said mobile terminal
and the authentication result of said mobile

20   terminal.

14.   The terminal authenticating method
according to claim 11, characterized in that said
second authenticating server judges whether or not

25   a communication between said first authenticating

server and said second authenticating server is possible, and if the communication with said first authenticating server is judged to be possible, obtains and stores said authentication data

5   required to authenticate said mobile terminal from said first authenticating server at any timing.

15.   The terminal authenticating method according to claim 14, characterized in that said

10 second authenticating server obtains said authentication data from said first authenticating server at a predetermined timing and updates said authentication data stored in said second authenticating server.

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16.   The terminal authenticating method according to claim 11, characterized in that when said second authenticating server authenticates said mobile terminal and fails to authenticate

20 said mobile terminal, said second authenticating server sends said authentication request to said first authenticating server, and said first authenticating server carries out the authentication, and said first authenticating

25 server transmits the authentication result of said

mobile terminal to said second authenticating server.

17.   The terminal authenticating method according to claim 11, characterized in that said second authenticating server reports the authentication result carried out by said first authenticating server or said second authenticating server to said mobile terminal transmitting said authentication request.

18.   A terminal authenticating server which, when a mobile terminal participates in a mobile network arranged inside a mobile body, can authenticate said mobile terminal, said terminal authenticating server being characterized in that it is arranged inside said mobile network, apart from a terminal authenticating server arranged at a place away from said mobile network.

19.   The terminal authenticating server according to claim 18, characterized by having: authenticating means which can authenticate said mobile terminal; and information storing means which can store an authentication data to be

referred when said mobile terminal is
authenticated.

20. The terminal authenticating server
according to claim 19, characterized by receiving
an authentication request from said mobile
terminal.

21. The terminal authenticating server
according to claim 20, characterized in that it
has connection judging means for judging whether
or not a communication with the terminal
authenticating server arranged at the place away
from said mobile network is possible, and when
receiving said authentication request from said
mobile terminal, if the communication with said
terminal authenticating server arranged at the
place away from said mobile network is judged to
be possible, it sends said authentication request
to the terminal authenticating server arranged at
the place away from said mobile network, and
receives an authentication result of said mobile
terminal from the terminal authenticating server
arranged at the place away from said mobile
network, and if the communication with the

terminal authenticating server arranged at the place away from said mobile network is judged to be impossible, it uses said authenticating means and authenticates said mobile terminal.

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22. The terminal authenticating server according to claim 21, characterized in that when receiving the authentication result of said mobile terminal from the terminal authenticating server arranged at the place away from said mobile

10 network, it correlates an identification information of said mobile terminal and the authentication result of said mobile terminal and stores as said authentication data in said

15 information storing means.

23. The terminal authenticating server according to claim 18, characterized in that it has connection judging means for judging whether or not a communication with the terminal

20 authenticating server arranged at the place away from said mobile network, and if the communication with the terminal authenticating server arranged at the place away from said mobile network is

25 judged to be possible, it obtains said

authentication data required to authenticate said

mobile terminal from the terminal authenticating

server arranged at the place away from said mobile

network at any timing and stores in said

5   information storing means.

24.   The terminal authenticating server

according to claim 23, characterized in that it

obtains said authentication data from the terminal

10   authenticating server arranged at the place away

from said mobile network at a predetermined timing

and updates said authentication data stored in

said information storing means.

15   25.   The terminal authenticating server

according to claim 19, characterized in that when

said authenticating means authenticates said

mobile terminal and fails to authenticate said

mobile terminal, it sends said authentication

20   request to the terminal authenticating server

arranged at the place away from said mobile

network and receives the authentication result of

said mobile terminal from said first

authenticating server.

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26.   The terminal authenticating server according to claim 19, characterized in that the authentication result carried out by the terminal authenticating server arranged at the place away from said mobile network, or the authentication result carried out by the terminal authenticating server is reported to said mobile terminal transmitting said authentication request.